

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

LAND SMOOTHING

(Acre
CODE 466

DEFINITION

Removing irregularities on the land surface by use of special equipment.

PURPOSE

- Improve surface drainage,
- Provide for more effective use of precipitation,
- Obtain more uniform planting depths,
- Provide for more uniform cultivation,
- Improve equipment operation and efficiency,
- Improve terrace alignment, and
- Facilitate contour cultivation.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies on areas where depressions, mounds, old terraces, turn rows, and other surface irregularities interfere with the application of needed soil and water conservation and management practices.

This practice applies to operations classed as rough grading. Ordinarily, this does not require a complete grid survey. It does not apply to the "floating" done as a regular maintenance practice on irrigated land or the "planning" done as the final step in Precision Land Forming (462) or in Irrigation Land Leveling (464).

It is limited to areas having adequate soil depth or where topsoil can be salvaged and replaced.

CRITERIA

The extent of rough grading required and tolerances of the finished smoothing job shall be in keeping with the requirements of the planned cropping system.

CONSIDERATIONS

Effects on the water budget, especially on volumes and rates of runoff, infiltration, and evaporation.

Potential for changes in plant growth and transpiration because of changes in the volume of soil water.

Effects on erosion and the movement of sediment and soluble and sediment-attached substances carried by runoff.

Effects on the use and management of nutrients and pesticides.

Effects on downstream water quality.

Potential for earth moving to uncover or redistribute toxic materials, such as saline soils.

Effects on the visual quality of downstream water resources.

PLANS AND SPECIFICATIONS

Plans and specifications for land smoothing shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose.

OPERATION AND MAINTENANCE

Fields should be evaluated periodically by the operator to optimize a healthy plant environment. The maintenance on smoothed fields may require the periodic removal or grading of mounds and/or depressions. Land smoothing, such as with a float may periodically be needed to restore the grade to an acceptable level.

REFERENCES

NRCS FOTG

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service.